Graham County

Estimated Economic Contribution of Agriculture, Food, and Food Processing Sectors
6/26/2019

Using the most recent IMPLAN data available (2017) adjusted for 2019, 9 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Graham County economy.[1]

These 9 sectors have a total direct output of approximately **$78.6 million** and support **430 jobs** in Graham County. Running the model for all 9 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Graham County Economy					
Contribution Type[2]	**Employment**	**% Employment**	**Total Value Added[3]**	**Total Value Added % of Gross Regional Product[4]**	**Output[5]**
Direct Effect	429.9	22.02%	$22,885,651	22.47%	$78,626,081
Indirect Effect	54.4	2.79%	$4,181,577	4.11%	$8,770,736
Induced Effect	12.1	0.62%	$765,551	0.75%	$1,567,340
Total Effect	496.4	25.43%	$27,832,778	27.33%	$88,964,156

As shown in the above table, agriculture, food, and food processing sectors support **496 jobs**, or **25.43%** of the entire workforce in the county.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 9 agriculture, food, and food processing sectors is approximately **$27.8 million**, or **27.33% of the GRP**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

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1 Article on building a contribution analysis in IMPLAN that avoids double counting:

https://implanhelp.zendesk.com/hc/en-us/articles/115002801513-Considerations-of-Contribution-Analysis

2 Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

3 Value added = labor income + indirect business taxes + other property type income.

4 GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

5 Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **244 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Graham County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	**Total Employment**	**Total Output**
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	243.9	$31,488,904
Grain farming	80.5	$31,964,796
Animal production, except cattle and poultry and eggs	64.3	$8,142,350
All other crop farming	27.0	$2,266,464
Wholesale trade	12.8	$2,367,993
Truck transportation	8.7	$1,760,867
Extraction of natural gas and crude petroleum	7.1	$1,145,028
Landscape and horticultural services	6.1	$331,132
Real estate	5.6	$760,517
Accounting, tax preparation, bookkeeping, and payroll services	4.3	$138,099

The grain farming sector directly contributes approximately **$31.9 million** to the Graham County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	**Total Employment**	**Total Output**
Grain farming	80.5	$31,964,796
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	243.9	$31,488,904
Animal production, except cattle and poultry and eggs	64.3	$8,142,350
Oilseed farming	3.4	$3,794,990
Wholesale trade	12.8	$2,367,993
All other crop farming	27.0	$2,266,464
Truck transportation	8.7	$1,760,867
Extraction of natural gas and crude petroleum	7.1	$1,145,028
Real estate	5.6	$760,517
Petroleum refineries	0.1	$674,810

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Graham County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	**Total Employment**	**Total Output**
Oilseed farming	3.4	$3,794,990.30
Grain farming	80.5	$31,964,796.07
All other crop farming	27.0	$2,266,464.47
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	243.9	$31,488,903.05
Poultry and egg production	0.1	$89,586.50
Animal production, except cattle and poultry and eggs	64.3	$8,142,350.20
Support activities for agriculture and forestry	1.2	$183,600.25
Bread and bakery product, except frozen, manufacturing	3.5	$364,256.74
Landscape and horticultural services	6.1	$331,132.11

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Graham County, the retail sector was omitted.